

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A corrosion inhibiting coating composition comprising:
~~at least about 1 wt% of a praseodymium compound oxide selected from the group consisting of oxides, mixed oxides, solid solution oxides, hydrated oxides, hydroxides, and combinations thereof; and~~
one or more binders a binder.
2. (Currently Amended) The composition of claim 1 further comprising [[a]] ~~an additional~~ rare earth compound selected from the group consisting of rare earth oxides, mixed oxides, solid solution oxides, hydroxides, hydrated oxides, salts, triflates, complexes and combinations thereof.
3. (Previously Presented) The composition of claim 2 wherein the rare earth compound is an anhydrous or hydrated oxide.
4. (Previously Presented) The composition of claim 2 wherein the rare earth compound comprises one or more metal cations selected from the group consisting of praseodymium, terbium, cerium, samarium, ytterbium, yttrium, neodymium and combinations thereof.
5. (Currently Amended) The composition of claim 2 wherein the rare earth compound is selected from the group consisting of cerium oxide, cerium hydroxide, cerium ~~solid solution~~ mixed oxide, cerium oxide mixture, cerium salt, neodymium oxide, neodymium hydroxide, ~~neodymium solid solution mixed oxide~~, neodymium oxide mixture, neodymium salt, praseodymium oxide, praseodymium hydroxide, praseodymium ~~solid solution~~ mixed oxide, praseodymium oxide mixture, praseodymium salt, ytterbium oxide, ytterbium hydroxide, ~~ytterbium solid solution mixed oxide~~, ytterbium oxide mixture, ytterbium salt, yttrium oxide, yttrium hydroxide, yttrium ~~solid solution~~ mixed oxide, yttrium oxide mixture, yttrium salt,

terbium oxide, terbium hydroxide, terbium ~~solid solution~~ mixed oxide, terbium oxide mixture, terbium salt, and combinations thereof.

6. (Previously Presented) The composition of claim 2 wherein the rare earth compound is a praseodymium compound.

7. (Previously Presented) The composition of claim 1 wherein the praseodymium compound is selected from the group consisting of praseodymium(III), praseodymium(III/IV), praseodymium(IV) compounds and mixtures thereof.

8. (Withdrawn) The composition of claim 1 wherein the praseodymium compound is a praseodymium(III) compound.

9. (Withdrawn) The composition of claim 8 wherein the praseodymium(III) compound is a praseodymium(III) oxide.

10. (Currently Amended) The composition of claim 1 wherein the praseodymium ~~compound oxide~~ is a praseodymium(III/IV) compound.

11. (Previously Presented) The composition of claim 10 wherein the praseodymium(III/IV) compound is a praseodymium(III/IV) oxide.

12. (Withdrawn) The composition of claim 1 wherein the praseodymium compound is a praseodymium(IV) compound.

13. (Currently Amended) The composition of claim 1 comprising at least about 3 wt% of the praseodymium ~~compound oxide~~.

14. (Currently Amended) The composition of claim 1 comprising at least about 28 wt% of the praseodymium ~~compound oxide~~.

15. (Currently Amended) The composition of claim 1 further comprising one or more extenders selected from the group consisting of a neutral to slightly acidic generating extender, an extenders or one or more acidic generating extender, and combinations thereof.

16. (Currently Amended) The composition of claim 15 wherein at least one of the one or more neutral to slightly acidic generating extenders or one or more acidic generating extenders is a sulfur, phosphorus or silicon oxyanion-containing salt.

17. (Original) The composition of claim 1 wherein the composition is selected from the group consisting of aqueous, solvent-based, and powder coating compositions.

18. (Previously Presented) The composition of claim 1 wherein the composition is an aqueous composition.

19. (Currently Amended) The composition of claim 1 wherein at least one of the one or more binders the binder is an organic polymer selected from the group consisting of epoxy, urethane, urea, acrylate, alkyd, melamine, polyester, vinyl, vinyl ester, organo-silicone, organo-siloxane, organo-silicate, organo-sulfide, organo-sulfone, epoxy novolac, epoxy phenolic, amides, drying oils, and hydrocarbon polymers.

20. (Currently Amended) The composition of claim 1 wherein at least one of the one or more binders the binder is an epoxy-based resin binder polymer.

21. (Previously Presented) The composition of claim 1 in combination with a material selected from the group consisting of linear and cyclic dextrans, triflic acid, triflates, acetates, talc, kaolin, organic-based ion exchange resins, and combinations thereof.

22. (Original) The composition of claim 21 comprising about 0.03 to about 5 wt% cyclodextrin, about 0.1 to about 0.5 wt% triflic acid, or about 0.1 to about 5 wt% ionic exchange resin.
23. (Withdrawn) The composition of claim 1 further comprising a material selected from the group consisting of gelatin and gelatin derivatives.
24. (Withdrawn) The composition of claim 23 comprising about 0.03 to about 5 wt% gelatin.
25. (Withdrawn) The composition of claim 1 further comprising a material selected from the group consisting of amino acids, amino acid derivatives and combinations thereof.
26. (Withdrawn) The composition of claim 25 wherein the amino acid is selected from the group consisting of glycine, arginine, and methionine.
27. (Withdrawn) The composition of claim 25 wherein the amino acid derivative is methionine sulfoxide or methionine methyl sulfoxide.
28. (Withdrawn- Currently Amended) The composition of claim 22 25 comprising about 0.1 to about 5 wt% amino acid.
29. (Withdrawn) The composition of claim 2 wherein the rare earth compound is a rare earth carbonate or a rare earth triflate.
30. (Previously Presented) The composition of claim 1 further comprising a coloring pigment.
31. (Original) The composition of claim 30 wherein the coloring pigment is TiO₂.

32-34. (Canceled)

35. (Original Currently Amended) A corrosion inhibiting composition comprising:
~~a one or more rare earth compound compounds;~~
~~a binder one or more binders;~~ and
one or more extenders selected from the group consisting of a neutral to slightly acidic generating extender, or an acidic generating extender, and combinations thereof.

36. (Currently Amended) The composition of claim 35 wherein ~~at least one of extenders the neutral to slightly acidic generating extender or the acidic generating extender~~ is a sulfur, phosphorus or silicon oxyanion-containing salt.

37. (Currently Amended) The composition of claim 35 wherein ~~at least one of the extenders the neutral to slightly acidic generating extender or the acidic generating extender~~ is an anhydrous or hydrous lanthanide sulfate.

38. (Currently Amended) The composition of claim 138 wherein the metal sulfate is selected from the group consisting of anhydrous magnesium sulfate, hydrous magnesium sulfate, anhydrous calcium sulfate, hydrous calcium sulfate, barium sulfate, samarium sulfate, and strontium sulfate, ~~calcium hydrogen sulfate, strontium hydrogen sulfate, barium hydrogen sulfate magnesium hydrogen sulfate and combinations thereof.~~

39. (Previously Presented) The composition of claim 138 wherein the metal sulfate is hydrous calcium sulfate, anhydrous calcium sulfate or strontium sulfate.

40. (Currently Amended) The composition of claim 38, ~~wherein at least one of the one or more extenders comprises comprising about 1 up to about 99 wt% metal sulfate.~~

41. (Currently Amended) The composition of claim 38, ~~wherein at least one of the one or more extenders comprises comprising about 45 to about 75 wt% metal sulfate.~~

42. (Currently Amended) The composition of claim 35 36 wherein the rare earth compound is selected from the group consisting of rare earth oxides, hydroxides, mixed oxides, solid solution oxides, hydrated oxides, salts, triflates, complexes, and combinations thereof.

43. (Currently Amended) The composition of claim 35 36 wherein at least one of the rare earth compound compounds comprises a one or more metal eations cation selected from the group consisting of praseodymium, terbium, cerium, samarium, ytterbium, yttrium, neodymium and combinations thereof.

44. (Currently Amended) The composition of claim 35 36 wherein at least one of the one or more rare earth compound compounds is a praseodymium compound.

45. (Original) The composition of claim 44 wherein the praseodymium compound is selected from the group consisting of praseodymium(III), praseodymium(III/IV), praseodymium(IV) compounds and combinations thereof.

46. (Withdrawn) The composition of claim 44 wherein the praseodymium compound is a praseodymium(III) compound.

47. (Currently Amended) The ~~eating~~-composition of claim 44 wherein the praseodymium compound is a praseodymium(III) sulfate oxide, or a praseodymium(III/IV) oxide or a praseodymium (IV) oxide.

48. (Original) The composition of claim 44 wherein the praseodymium compound is a praseodymium(III/IV) compound.

49. (Withdrawn) The composition of claim 44 wherein the praseodymium compound is a praseodymium(IV) compound.

50. (Currently Amended) The composition of claim 35 43 wherein the composition is selected from the group consisting of aqueous, solvent-based, and powder coating compositions.

51. (Currently Amended) The composition of claim 35 43 wherein at least one of the one or more binder binders is an organic polymer selected from the group consisting of epoxy, urethane, urea, acrylate, alkyd, melamine, polyester, vinyl, vinyl ester, organo-silicone, organo-siloxane, organo-silicate, organo-sulfide, organo-sulfone, polysulfide, epoxy novolac, epoxy phenolic, amides, drying oils, and hydrocarbon polymers.

52. (Currently Amended) The composition of claim 35 43 wherein at least one of the binder one or more binders is an epoxy-based resin binder polymer.

53. (Currently Amended) The composition of claim 35 43 wherein at least one of the binder one or more binders is an inorganic polymer selected from the group consisting of silicone, siloxane and silicate polymers.

54. (Currently Amended) The composition of claim 35 43 further comprising a coloring pigment.

55. (Original) The composition of claim 54 wherein the coloring pigment is TiO₂.

56. (Currently Amended) A corrosion inhibiting primer composition comprising:
at least about 1 wt% of a praseodymium (III/IV) mixed oxide; and
a-binder-one or more binders.

57. (Original) The composition of claim 56 wherein the composition is selected from the group consisting of aqueous, solvent-based, and powder coating compositions.

58. (Currently Amended) The composition of claim 56 wherein at least one of the binder one or more binders is an organic polymer selected from the group consisting of epoxy, urethane,

urea, acrylate, alkyd, melamine, polyester, vinyl, vinyl ester, organo-silicone, organo-siloxane, organo-silicate, organo-sulfide, organo-sulfone, polysulfide, epoxy novolac, epoxy phenolic, amides, drying oils, and hydrocarbon polymers.

59. (Currently Amended) The composition of claim 56 wherein at least one of the binder one or more binders is an epoxy-based resin binder polymer.

60. (Currently Amended) The composition of claim 56 wherein at least one of the binder one or more binders is an inorganic polymer selected from the group consisting of silicone, siloxane and silicate polymers.

61. (Original) The composition of claim 56 further comprising a coloring pigment.

62. (Previously Presented) The composition of claim 61 wherein the coloring pigment is TiO₂.

63-66. (Canceled)

67. (Currently Amended) A corrosion inhibiting coating composition comprising:
a binder-one or more binders;
one or more rare earth element oxides selected from the group consisting of oxides, mixed oxides, solid solution oxides, hydrated oxides and hydroxides; and
a praseodymium oxide selected from the group consisting of oxides, mixed oxides, solid solution oxides, hydrated oxides, and hydroxides, and combinations thereof, wherein the praseodymium oxide is present in an amount of at least about 1 wt%.

68. (Currently Amended) The composition of claim 67 wherein the praseodymium oxide is selected from the group consisting of PrO₂, Pr₂O₃, and Pr₆O₁₁ and combinations thereof.

69. (Currently Amended) The composition of claim 67 further comprising one or more extenders selected from the group consisting of a neutral to slightly acidic generating extender, or an acidic generating extender, and combinations thereof.

70. (Currently Amended) A corrosion inhibiting coating composition having a local pH or ionic activity comprising:

a binder one or more binders;

one or more rare earth element oxides selected from the group consisting of oxides, mixed oxides, solid solution oxides, hydrated oxides, and hydroxides[.,.]; and

one or more extenders selected from the group consisting of a neutral to slightly acidic generating extender, or an acidic generating extender, and combinations thereof.

71-120. (Canceled)

121. (Currently Amended) A method for preparing a coating composition comprising:
preparing a paint formulation; and
adding an effective corrosion-inhibiting amount of a rare earth compound and at least one or more extenders selected from the group consisting of a neutral to slightly acidic generating extender, or an acidic generating extender, and combinations thereof to the paint formulation to produce a coating composition.

122. (Previously Presented) The method of claim 121 further comprising pre-dispersing the rare earth compound with a dispersant.

123-126. (Canceled)

127. (Currently Amended) The composition method of claim 121 15 wherein at least one of the one or more neutral to slightly acidic generating extenders or one or more acidic generating extenders is a sulfur, phosphorus or silicon oxyanion-containing salt.

128. (Currently Amended) The ~~composition method~~ of claim 121 ~~45~~ wherein at least one of the one or more neutral to slightly acidic generating extenders or one or more acidic generating extenders is a sulfate.

129. (Currently Amended) The ~~composition method~~ of claim 128 wherein the sulfate is a metal sulfate.

130. (Currently Amended) The ~~composition method~~ of claim 129 wherein the metal sulfate is selected from the group consisting of calcium sulfate, strontium sulfate, magnesium sulfate, barium sulfate, ~~calcium hydrogen sulfate, strontium hydrogen sulfate, barium hydrogen sulfate, magnesium hydrogen sulfate~~ and combinations thereof.

131. (Currently Amended) The ~~composition method~~ of claim 121 ~~45~~ wherein at least one of the one or more neutral to slightly acidic generating extenders or one or more acidic generating extenders is a phosphate.

132. (Currently Amended) The ~~composition method~~ of claim 121 ~~44~~ wherein the praseodymium compound is a praseodymium(III) sulfate or a praseodymium(III/IV) oxide.

133. (Currently Amended) The ~~composition method~~ of claim [[66]] 121 wherein the ~~one or more extenders extender are substantially insoluble soluble~~.

134-136. (Canceled)

137. (Currently Amended) The ~~composition method~~ of claim 128 wherein the sulfate is a praseodymium sulfate.

138. (Currently Amended) The composition of claim 35 wherein ~~at least one of the one or more extenders the neutral to slightly acidic generating extender or an acidic generating extender is a metal sulfate.~~

139. (Previously Presented) The composition of claim 67 wherein at least one of the one or more rare earth element oxides is a rare earth praseodymium oxide or a rare earth terbium oxide.

140. (Canceled)

141. (Currently Amended) The composition of claim 1 comprising at least about 1 weight % up to about 40 wt% of the praseodymium compound.

142. (Previously Presented) The composition of claim 1 wherein the praseodymium compound is a praseodymium oxide, a praseodymium mixed oxide or a combination thereof.

143. (Currently Amended) The composition of claim 142 wherein the praseodymium(III/IV) praseodymium mixed oxide is Pr₆O₁₁.

144. (Previously Presented) The composition of claim 143 wherein the Pr₆O₁₁ is present in amounts of at least about 3 wt%.

145. (Previously Presented) The composition of claim 143 wherein the Pr₆O₁₁ is present in amounts of at least about 28 wt%.

146. (Previously Presented) The composition of claim 143 wherein the Pr₆O₁₁ is present in amounts of at least about 40 wt%.

147. (Currently Amended) The composition of claim 35 38 wherein the rare earth compound is an oxide, mixed oxide or combination thereof.

148. (Previously Presented) The composition of claim 147 further comprising a second rare earth compound selected from the group consisting of rare earth oxides, mixed oxides, solid

solution oxides, hydroxides, hydrated oxides, salts, triflates, complexes and combinations thereof.

149. (Currently Amended) The composition of claim 56 further comprising [[a]] an additional rare earth compound selected from the group consisting of rare earth oxides, mixed oxides, solid solution oxides, hydroxides, hydrated oxides, salts, triflates, complexes and combinations thereof.

150. (Previously Presented) The composition of claim 67 wherein at least one of the one or more rare earth element oxides is selected from the group consisting of Y_2O_3 ; La_2O_3 , CeO_2 , $\text{Pr}(\text{OH})_3$, PrO_2 , Pr_2O_3 , Pr_6O_{11} , Nd_2O_3 , Sm_2O_3 , Tb_4O_7 , and Yb_2O_3 .

151. (Previously Presented) The composition of claim 70 wherein at least one of the one or more rare earth element oxides is an anhydrous praseodymium oxide.

152. (Currently Amended) The composition of claim 70 wherein at least one of the one or more extenders the neutral to slightly acidic generating extender or [[an]] acidic generating extender is a metal sulfate.

153. (Currently Amended) The composition of claim 152 wherein the metal sulfate is selected from the group consisting of anhydrous magnesium sulfate, hydrous magnesium sulfate, anhydrous calcium sulfate, hydrous calcium sulfate, barium sulfate, samarium sulfate, strontium sulfate, calcium hydrogen sulfate, strontium hydrogen sulfate, barium hydrogen sulfate, magnesium hydrogen sulfate and combinations thereof.

154. (Withdrawn) A corrosion inhibiting primer composition comprising:
a rare earth triflate or a rare earth carbonate; and
a binder.

155. (Withdrawn) The composition of claim 154 wherein the rare earth triflate or rare earth carbonate comprises one or more metal cations selected from the group consisting of praseodymium, terbium, cerium, samarium, ytterbium, yttrium, neodymium and combinations thereof.

156. (Withdrawn) The composition of claim 154 wherein the rare earth triflate is a praseodymium triflate or a terbium triflate and the rare earth carbonate is a praseodymium triflate or a terbium triflate.

157. (Withdrawn) The coating composition of claim 154 further comprising one or more metal cations selected from the group consisting of Group 1A, Group 2A, Group 3A, and Group 3B metals.

158. (Withdrawn) The coating composition of claim 154 further comprising one or more anions selected from the group consisting of acetate, borate, carbonate, nitrate, phosphate, phosphonate, sulfate, triflate, and EDTA.

159. (Withdrawn) The composition of claim 154 further comprising a second rare earth compound selected from the group consisting of rare earth oxides, mixed oxides, solid solution oxides, hydroxides, hydrated oxides, salts, triflates, complexes and combinations thereof.

160. (Previously Presented) The method of claim 121 wherein the rare earth compound is a praseodymium oxide or praseodymium mixed oxide.

161. (Previously Presented) The method of claim 160 wherein the praseodymium mixed oxide is Pr_6O_{11} .

162. (Withdrawn) The method of claim 121 further comprising adding a material selected from the group consisting of amino acids, derivates of amino acids, and combinations thereof to the paint formulation.

163. (Withdrawn) The method of claim 121 further comprising adding a material selected from the group consisting of gelatin, gelatin derivatives, and combinations thereof to the paint formulation.

164. (Currently Amended) A method for preparing a coating composition comprising:
preparing a paint formulation; and
adding an effective corrosion-inhibiting amount of at least about 1 weight percent of a praseodymium oxide or a praseodymium mixed oxide compound selected from the group consisting of oxides, mixed oxides, solid solution oxides, hydrated oxides, hydroxides, and combinations thereof to the paint formulation to produce a coating composition.

165. (Currently Amended) The method of claim 164 wherein the praseodymium mixed oxide compound is Pr₆O₁₁.

166. (Currently Amended) The method of claim 164 further comprising adding [[a]] an additional rare earth compound selected from the group consisting of rare earth oxides, mixed oxides, solid solution oxides, hydroxides, hydrated oxides, salts, triflates, complexes and combinations thereof to the paint formulation.

167. (Currently Amended) The method of claim 164 further comprising adding one or more extenders a neutral-to-slightly acidic generating extender or an acidic generating extender to the paint formulation.

168. (Currently Amended) The method of claim 164 further comprising pre-dispersing the at least about 1 weight percent of the praseodymium oxide or praseodymium mixed oxide compound with a dispersant.

169-183. (Canceled).

184. (New) The composition of claim 7 further comprising one or more extenders selected from the group consisting of a neutral to slightly acidic generating extender.

185. (New) The composition of claim 184 wherein at least one of the one or more binders is an organic polymer selected from the group consisting of epoxy and urethane polymers.

186. (New) The composition of claim 185 wherein at least one of the one or more extenders is calcium sulfate.

187. (New) The composition of claim 186 wherein the calcium sulfate is selected from the group consisting of hydrous calcium sulfate, anhydrous calcium sulfate and combinations thereof.

188. (New) The composition of claim 7 wherein at least one of the one or more binders is an organic polymer selected from the group consisting of epoxy and urethane polymers.

189. (New) The composition of claim 56 wherein at least one of the one or more binders is an inorganic binder.

190. (New) The composition of claim 189 wherein the inorganic binder is an inorganic polymer selected from the group consisting of silicone polymers, siloxane polymers, silicate polymers and combinations thereof.

191. (New) The method of claim 121 wherein the praseodymium compound is praseodymium hydrogen sulfate.

192. (New) The method of claim 131 wherein the phosphate comprises hydrogen phosphate, di-hydrogen phosphate or combinations thereof.

193. (New) The method of claim 137 wherein the praseodymium sulfate is praseodymium hydrogen sulfate.

194. (New) The composition of claim 1 wherein at least one of the one or more binders is an inorganic binder.

195. (New) The composition of claim 194 wherein the inorganic binder is an inorganic polymer selected from the group consisting of silicone polymers, siloxane polymers, silicate polymers and combinations thereof.